Claims 1-14, 16, and 18 are now pending in the application. Claims 1, 5, 8, 12, 16, and 18 are currently amended. No claims are cancelled or newly added by this amendment. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the remarks contained herein.

REJECTION UNDER 35 U.S.C. § 101

Claims 16 and 18 stand rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Claims 16 and 18 are amended in accordance with the Examiner's suggestions. Accordingly, Applicant requests reconsideration and withdrawal of the rejection.

REJECTION UNDER 35 U.S.C. § 103

Claims 1, 3-8, 10-14, 16, and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kimata (CIT 2004, IEEE; "Kimata") in view of Puri (Signal Processing Image Communication 2, 1990, pp. 127-144; "Puri"). This rejection is respectfully traversed.

Claims 2 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kimata in view of Puri, and further in view of Eifrig (U.S. Pat. No. 5,991,447; "Eifrig"). This rejection is respectfully traversed.

Independent claim 1 is amended so as to show a feature that when a subject is included in the images belonging to the GOPs and it is determined that the relevant image of the given GOP is not encoded, image data of the subject having a viewing

position or direction which corresponds to the given GOP is generated using data of the images belonging to the GOPs other than the given GOP. The current amendment relates to the previous amendment which limits that GOPs of the present invention correspond to different viewing positions or directions, and the current amendment specifically shows a method for generating image data of the subject having a viewing position or direction which corresponds to the given GOP when the image of the given GOP is not encoded.

The other independent claims 5, 8, and 12 are also similarly amended. The second paragraph on page 4 in the original English specification of the present application shows a known method for generally generating image data of a subject, which corresponds to a viewing position or direction at or in which no photographing is performed.

Despite making the above amendments, Applicant continues to maintain the validity of the previous assertions about differences between the present invention and the cited references, as follows.

As previously asserted, the CMCI disclosed in Chapter 4.1 in the Puri reference is used in encoding of frames which are temporally separated from each other, and an intermediate (i.e., skipped) frame is encoded using CMCI. More specifically:

(i)   The interpolated frame is likely to have regions with prominent errors due to uncovered backgrounds and because a motion-field used for generating the skipped frame usually contains inaccuracies in describing the movement of objects. It therefore seems reasonable to provide some additional information to the decoder about the frame being interpolated.

(ii)   However, the advantage of motion-compensated interpolation is lost if the amount of the additional information approaches the amount of information sent for MCPE (motion-compensated prediction error). Therefore, it is preferable to keep the additional information as small as possible, and to send it only where it is really necessary.

(iii)   The MCIE (motion-compensated interpolation error) is coded where it is significant. The MCIE and MCPE are coded independently.

Therefore, in the Puri method, the target to be encoded or not encoded is <u>not MCPE, but MCIE which is additional information</u>, and MCIE is encoded only when it is significant, <u>as also stated by the Examiner (see lines 14 to 16 on page 4 and lines 1 to 2 on page 5 in the current Office Action)</u>.

If it is assumed that the target to be encoded or not encoded is the above MCPE in the Puri method, the skilled person may think of applying the Puri method to a technique in which "whether or not it is encoded is each GOP in an input image" (as in the present invention).

However, in the case of MCIE which is additional information for an interpolated frame, the interpolated frame itself completely differs from "each GOP in an input image". Therefore, Applicant asserts that for the skilled person, it would <u>not</u> be obvious to apply the Puri method to Kimata, and even assuming that it would be obvious, it would never bring the skilled person to the present invention.

Accordingly, even if Kimata discloses interpolation of an image belonging to a GOP based on another GOP (the distinctive features of the present invention) such that "whether or not it is encoded is each GOP in an input image, and determination for

whether or not it is encoded is performed based on a determination whether or not the image belonging to the relevant GOP can be generated on the decoding side without using encoded data of the relevant image" is still not disclosed or indicated in either of the cited references.

In addition, in the present invention, when a subject is included in the images belonging to the GOPs which correspond to different viewing positions or directions, and it is determined that the relevant image of a given GOP is not encoded, image data of the subject having a viewing position or direction which corresponds to the given GOP is generated using data of the images belonging to the GOPs other than the given GOP. Such a method is also not disclosed or indicated in either of the cited references.

In accordance with the present invention having the above-described feature, it is possible to efficiently determine during the encoding of images belonging to the GOPs which correspond to different viewing positions or directions whether a relevant image of a given GOP can be generated on the decoding (image reproduction) side, and data (information) for indicating whether or not the relevant image is to be generated can be encoded. Therefore, the image encoding side can reliably control whether a video image is not to be encoded, thereby improving the encoding efficiency. Accordingly, it is possible to provide a video encoding and decoding technique preferably applicable to a video technique for changing the viewing position or direction.

Either alone or in combination, neither Puri nor Kimata can provide such effects. Therefore, it is respectfully submitted that the pending claims define patentable subject matter over the applied combination of references. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: <u>August 17, 2011</u>   By: /Gregory A. Stobbs/_____
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